

PP-B166

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PCT REQUEST

Original (for SUBMISSION )

<b>0</b>	<b>For receiving Office use only</b>	
<b>0-1</b>	International Application No.	
<b>0-2</b>	International Filing Date	
<b>0-3</b>	Name of receiving Office and "PCT International Application"	
<b>0-4</b>	<b>Form PCT/RO/101 PCT Request</b>	
<b>0-4-1</b>	Prepared Using	PCT-SAFE [EASY mode] Version 3.50 (Build 0002.173)
<b>0-5</b>	Petition The undersigned requests that the present international application be processed according to the Patent Cooperation Treaty	
<b>0-6</b>	Receiving Office (specified by the applicant)	Korean Intellectual Property Office (RO/KR)
<b>0-7</b>	Applicant's or agent's file reference	PP-B166
<b>I</b>	Title of Invention	MULTIPOTENT STEM CELLS ISOLATED FROM UMBILICAL CORD BLOOD AND THE CELLULAR THERAPEUTIC AGENT COMPRISING THE SAME FOR TREATING ISCHEMIC DISEASE
<b>II</b>	<b>Applicant</b>	
<b>II-1</b>	This person is	applicant only
<b>II-2</b>	Applicant for	all designated States except US
<b>II-4</b>	Name	SEOUL NATIONAL UNIVERSITY INDUSTRY FOUNDATION
<b>II-5</b>	Address	56-1, San, Sinrim-9-dong, Gwanak-gu Seoul151-050 Republic of Korea
<b>II-6</b>	State of nationality	KR
<b>II-7</b>	State of residence	KR
<b>II-8</b>	Telephone No.	82-2-880-7890
<b>II-9</b>	Facsimile No.	82-2-872-1813

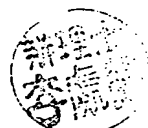
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III-1	<b>Applicant and/or inventor</b>	
III-1-1	This person is	applicant and inventor
III-1-2	Applicant for	US only
III-1-4	Name (LAST, First)	KANG, Kyung Sun
III-1-5	Address	113-703, Sillim Prugio APT, Sillim 11-Dong, Gwanak-ku Seoul151-050 Republic of Korea
III-1-6	State of nationality	KR
III-1-7	State of residence	KR
IV-1	<b>Agent or common representative; or address for correspondence</b>	
	The person identified below is hereby/ has been appointed to act on behalf of the applicant(s) before the competent International Authorities as:	agent
IV-1-1	Name (LAST, First)	LEE, Cheo Young
IV-1-2	Address	11th Floor Won Bldg., 648-26, YeokSam- dong, KangNam-gu Seoul135-080 Republic of Korea
IV-1-3	Telephone No.	82-2-2051-4300
IV-1-4	Facsimile No.	82-2-2051-5271
IV-1-5	e-mail	cylee@5tpat.com
IV-1-6	Agent's registration No.	9-2003-000118-9
V	<b>DESIGNATIONS</b>	
V-1	The filing of this request constitutes under Rule 4.9(a), the designation of all Contracting States bound by the PCT on the international filing date, for the grant of every kind of protection available and, where applicable, for the grant of both regional and national patents.	
VI-1	Priority Claim	NONE
VII-1	International Searching Authority Chosen	Korean Intellectual Property Office (ISA/KR)

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<b>VIII</b>	<b>Declarations</b>	<b>Number of declarations</b>	
VIII-1	Declaration as to the identity of the inventor	-	
VIII-2	Declaration as to the applicant's entitlement, as at the international filing date, to apply for and be granted a patent	-	
VIII-3	Declaration as to the applicant's entitlement, as at the international filing date, to claim the priority of the earlier application	-	
VIII-4	Declaration of inventorship (only for the purposes of the designation of the United States of America)	-	
VIII-5	Declaration as to non-prejudicial disclosures or exceptions to lack of novelty	-	
<b>IX</b>	<b>Check list</b>	<b>number of sheets</b>	<b>electronic file(s) attached</b>
IX-1	Request (including declaration sheets)	4	✓
IX-2	Description	16	-
IX-3	Claims	2	-
IX-4	Abstract	1	✓
IX-5	Drawings	9	-
IX-7	TOTAL	32	
	<b>Accompanying Items</b>	<b>paper document(s) attached</b>	<b>electronic file(s) attached</b>
IX-8	Fee calculation sheet	✓	-
IX-9	Original separate power of attorney	✓	-
IX-17	PCT-SAFE physical media	-	✓
IX-19	Figure of the drawings which should accompany the abstract	1	
IX-20	Language of filing of the International application	English	
X-1	Signature of applicant, agent or common representative		
X-1-1	Name (LAST, First)		
X-1-2	Name of signatory		
X-1-3	Capacity		
		LEE, Cheo Young	

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## FOR RECEIVING OFFICE USE ONLY

10-1	Date of actual receipt of the purported international application	
10-2	Drawings:	
10-2-1	Received	
10-2-2	Not received	
10-3	Corrected date of actual receipt due to later but timely received papers or drawings completing the purported international application	
10-4	Date of timely receipt of the required corrections under PCT Article 11(2)	
10-5	International Searching Authority	ISA/KR
10-6	Transmittal of search copy delayed until search fee is paid	

## FOR INTERNATIONAL BUREAU USE ONLY

11-1	Date of receipt of the record copy by the International Bureau	
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**PCT (ANNEX - FEE CALCULATION SHEET)**

Original (for SUBMISSION )

(This sheet is not part of and does not count as a sheet of the international application)

<b>0</b>	<b>For receiving Office use only</b>		
<b>0-1</b>	International Application No.		
<b>0-2</b>	Date stamp of the receiving Office		
<b>0-4</b>	<b>Form PCT/RO/101 (Annex) PCT Fee Calculation Sheet</b>		
<b>0-4-1</b>	Prepared Using	<b>PCT-SAFE [EASY mode] Version 3.50 (Build 0002.173)</b>	
<b>0-9</b>	Applicant's or agent's file reference		<b>PP-B166</b>
<b>2</b>	Applicant		<b>SEOUL NATIONAL UNIVERSITY INDUSTRY FOUNDATION</b>
<b>12</b>	<b>Calculation of prescribed fees</b>	fee amount/multiplier	Total amounts (KRW)
<b>12-1</b>	Transmittal fee <b>T</b>	⇒	<b>45000</b>
<b>12-2-1</b>	Search fee <b>S</b>	⇒	<b>225000</b>
<b>12-2-2</b>	International search to be carried out by	<b>KR</b>	
<b>12-3</b>	International filing fee (first 30 sheets) <b>I1</b>	<b>1195000</b>	
<b>12-4</b>	Remaining sheets	<b>2</b>	
<b>12-5</b>	Additional amount <b>(X)</b>	<b>13000</b>	
<b>12-6</b>	Total additional amount <b>I2</b>	<b>26000</b>	
<b>12-7</b>	<b>I1 + I2 =</b> <b>I</b>	<b>1221000</b>	
<b>12-12</b>	EASY Filing reduction <b>R</b>	<b>-85000</b>	
<b>12-13</b>	Total International filing fee (I-R) <b>I</b>	⇒	<b>1136000</b>
<b>12-14</b>	Fee for priority document		
	Number of priority documents requested	<b>0</b>	
<b>12-15</b>	Fee per document <b>(X)</b>	<b>500</b>	
<b>12-16</b>	Total priority document fee: <b>P</b>	⇒	
<b>12-17</b>	<b>TOTAL FEES PAYABLE (T+S+I+P)</b>	⇒	<b>1406000</b>
<b>12-19</b>	Mode of payment	<b>cash</b>	

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13-2-1	Validation messages Request	Green? The title of the invention shall be short and precise. Please verify.
13-2-4	Validation messages Priority	Green? No priority of an earlier application has been claimed. Please verify

본 발명은 제대혈(탯줄) 유래 혈액을 인간 혈청 또는 프라즈마 함유하는 배지에서 배양하여 분리해 낸 성체 줄기세포인 다분화능 줄기세포(multipotent stem cells) 및 이를 유효성분으로 함유하는 폐쇄성 동맥질환에 의한 허혈성 괴사질환 치료용 세포치료제에 관한 것이다. 본 발명에 따른 다분화능 줄기세포는 성체 줄기세포임에도 불구하고 골형성 세포 또는 신경세포로 분화하는 능력을 가지고 있어서 대퇴부의 동맥순환 정체가 말초순환장애를 일으킴으로서 미세 혈관계의 조직을 붕괴시켜 허혈성 괴사를 야기하는 질병뿐만 아니라 뇌경색, 심근경색, 당뇨의 후유증으로 오는 사지 말단의 괴사 등 허혈성 질병의 치료에 유용하다.